# Anderson Associates

**Broadcast Engineering Consultants** 

# WMXB Tuscaloosa, AL 1280 kHz #68420

## **APPLICATION FOR ENGINEERING STA**

STA filed via email in accordance with Commission procedures. In the absence of a form, the following information is provided in an attempt to fulfill STA filing requirements.

**Applicant:** 

Lawson of Tuscaloosa, Inc. P. O. Box 70427 <u>jwlawson@bellsouth.net</u> 205-345-4787

WMXB 1280 kHz Facility #68420 FRN 0009937590

#### Purpose:

The applicant has lost the licensed site for WMXB and must operate from a temporary site under an STA until a permanent location can be obtained and appropriate applicants filed.

#### **Certification:**

The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to \$5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. \$862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under \$1.2002(c) of the rules, 47 CFR . See \$1.2002(b) of the rules, 47 CFR \$1.2002(b), for the definition of "party to the application" as used in this certification \$1.2002(c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.

#### James Lawson, President

# Anderson Associates

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### Technical data and exhibits for requested STA:

WMXB 1280 kHz Facility #68420 0.1 kW Day/ 0.030 kW Night Efficiency - 308.4 mV/m/km/kW worst case assuming 200 foot tower and 120 ground radials of 200 fet each,

### Site: N 33-12-16.6 W 87-31-26 (NAD 27)

Antenna type: 200 foot long wire dipole mounted 60 feet above ground and suspended between two trees.

This Technical Report is provided in support of an application for an STA for station WMXB on 1280 kHz (FCC facility # 68420). An STA is requested to operate at a temporary site with 100 Watts Day and 30 Watts Night by exciting a 200 ft long wire dipole.

The following exhibits are provided:

- A- Vertical sketch
- B- Map demonstrating that the STA 0.5 mV/m is contained with the licensed 0.5 mV/m
- C- Night interference study

#### **<u>RF determination:</u>**

The 0.1 kW, 200 foot long wire is 60 feet above ground. It will clearly pose no RF exposure beyond general population limits since a 200 ft  $(0.26\lambda)$  antenna would only require a fence within 1 meter or less based on the Commission's RF table from form 301.

Frequency (kHz)	Transmitter Power (kW)			
	50	10	5	1
	Predicted Distance for Compliance with FCC Limits (meters)			
535-740	4	2	2	1
750-940	4	2	2	1
950-1140	4	2	2	1
1150-1340	4	2	2	1
1350-1540	4	2	2	1
1550-1705	5	2	2	1

#### TABLE 2. Predicted Distances for Compliance with FCC Limits: 0.21-0.4 Wavelength

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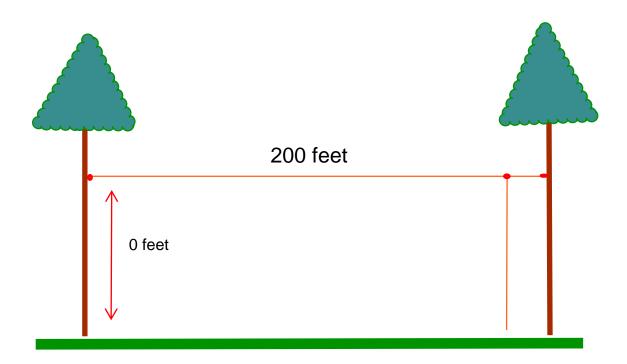
If any additional technical information is required please contact the undersigned.

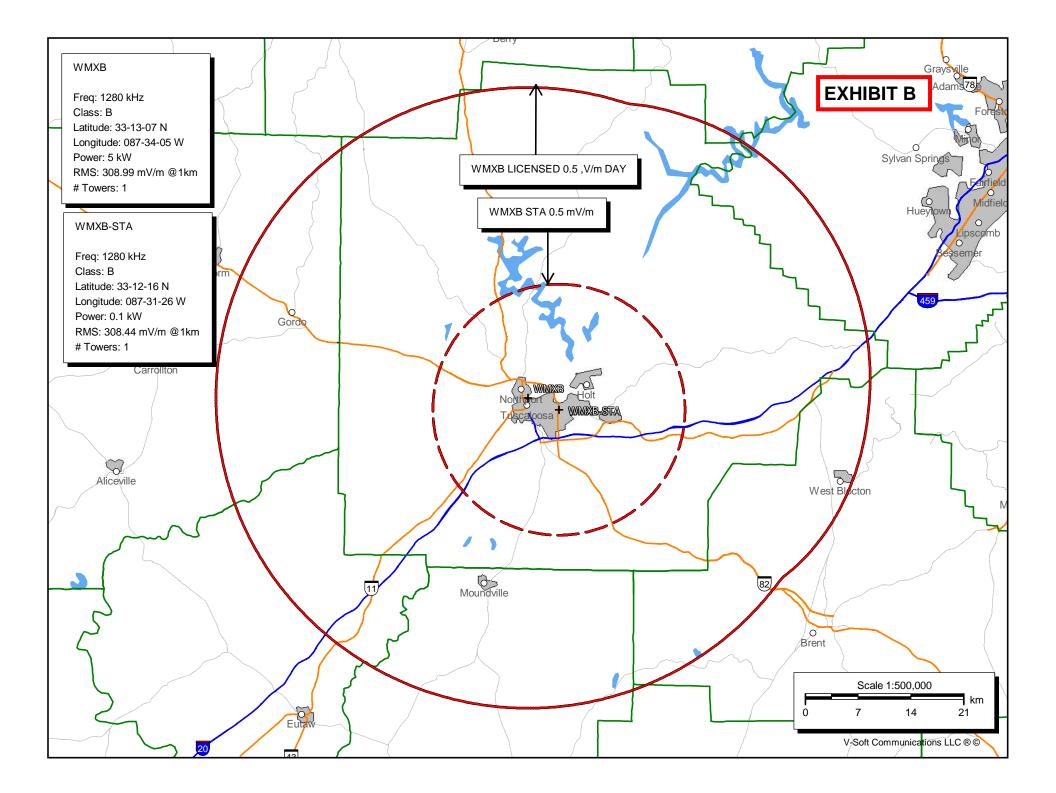
harles M. anderson

Charles M. Anderson 1-25-2022 270-535-4432 cmanderson43@yahoo.com

# EXHIBIT A - WMXB STA ANTENNA

The WMXB 1280 kHz STA antenna is a 200 foot long wire dipole stretched between two trees at 60 feet above ground level.





## **EXHIBIT C Night Allocation Protection Report**

Call: WMXB-STA Freq: 1280 kHz TUSCALOOSA, AL, US Hours: D Lat: 33-12-16 N Lng: 087-31-26 W Power: 0.03 kW Theo RMS: 308.44 mV/m @ 1km @ 1kW Field Phase Spacing Orient Height Ref TL A в С D # Ratio (deg) (deg) (deg) Swtch Swtch (deg) (deg) (deg) (deg) -- ---- ---------- ----- ----- ----- ----- -----0 0 0.0 0.0 0.0 1.000 0.0 0.0 0.0 94.0 1 0.0 Call SWFF Req Prot Permis Cur Rad Margin Ct St City (100uV/m) (mV/m) (mV/m) (mV/m) Letters (mV/m) US LA NEW ORLEANS WODT 143.52 1.492 51.97 49.85 2.12 50% = 4.132, 25% = 5.942; ZYJ-455-A=2.63 WALI=2.27 XETIZ/A=2.24 WADO=1.94 HJSO-A=1.70 HRAM-A=1.60 XECAM/A=1.57 YVQS-A=1.50 WMXB=1.49 XESQ/A=1.45 US IN EVANSVILLE WGBF 109.90 1.955 88.94 51.09 37.85 50% = 5.531, 25% = 7.909; WALI=5.53 WHIO=2.36 WONW=2.27 WANS=2.19 WMCP=2.16 ZYJ-455-A=2.00 WWTC=1.99 WJAY=1.95 WMCP US TN COLUMBIA 233.75 4.156 88.89 45.00 43.89 50% = 16.622, 25% = 16.622; WGBF=14.64 WALI=7.88 WWTC US MN MINNEAPOLIS 22.57 1.016 225.18 53.32 171.86 50% = 3.114, 25% = 4.065; KOIL=2.70 KNWC=1.55 ZYJ-455-A=1.42 WIRL=1.36 WODT=1.35 WBIG=1.07 WANS US SC ANDERSON 130.49 7.025 269.17 50.35 218.82

WJAY=5.91 WADO=5.58 WMCP=4.51 WUZZ US PA NEW CASTLE 37.03 2.059 278.06 53.09 224.97

50% = 13.33, 25% = 18.554; WGBF=8.66 WALI=7.30 WMXB=7.03 WODT=6.59 WUZZ=6.06

WUZZ US PA NEW CASILE 37.03 2.059 278.06 53.09 224.97 50% = 5.386, 25% = 8.398; WSUX=3.29 WADO=3.16 WONW=2.87 WHTK=2.66 WGBF=2.38 WXYT=2.26 WALI=2.22 WJAY=2.22 WHVR=2.19 CFMB/ =2.18 1280CFBN/ =2.06